Wheelabrator Technologies Inc.
4 Liberty Lane West
Hampton, NH 03842

July 25, 2005

Howard B. Bernstein
RPS Program Manager
Massachusetts Division of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

Dear Mr. Bernstein:

On behalf of Wheelabrator Technologies Inc., I submit the following comments on the Notice of Intent Regarding Some Proposed Revisions of the Regulations Pertaining to the Definition of "Low Emission, Advanced Biomass Power Conversion Technologies". (NOI).

Wheelabrator Technologies owns and/or operates 17 waste-to-energy facilities and six (6) small independent power production (IPP) facilities in the U.S. Wheelabrator has considerable experience with stoker biomass plants, having owned and operated five IPP plants that burned biomass as all, or a portion, of their fuel. Currently three of these biomass plants in operation: the plants in Maine (20MW) and California (58MW) burn "green" wood and our Florida plant (50 MW) burns a combination of urban wood (not C&D), shredded tires and landfill gas.

We commend the Division of Energy Resources (DOER) for reaching out to stakeholders for input during the early stage of development of the proposed revisions to the biomass rules. We support DOER's efforts to allow stoker-fired biomass plants to participate in the RPS as these renewable energy resources can help play an important role in reducing our dependence on fossil fuels. As you are aware, biomass-fired power plants are also a significant contributor to the reduction of emissions of greenhouse gases.

Wheelabrator's comments are focused on effect of the proposal on existing biomass facilities and their ability to qualify to participate in the Massachusetts RPS.

I would first like to make some general comments about the NOI and then will attempt to provide preliminary responses to the questions raised by DOER in the NOI (page 15 and 16.)

In the NOI, DOER refers to the import provision for a generation unit located outside the ISO New England Control Area (225 CMR 14.05(5)). The provision requires that a unit located outside the ISO-NE Control Area must deliver the electrical energy into the ISO-NE Control Area to qualify as a New Renewable Generation Unit. ISO-NE routinely

claims that ISO-NE is responsible for the operation of New England's bulk power generation and transmission system. While this is true for most of New England, ISO-NE does not oversee units located in Northern Maine as these units are part of the North Maine Independent System Administrator (NMISA) control area. We assume that the proposed restriction in the NOI was intended to capture only units located outside New England, not units located outside the ISO-NE Control Area. We support this by calling your attention to the Annual RPS Compliance Report for 2003 where on page five it states: "None of the output came from *outside New England* (emphasis added)." Therefore, Wheelabrator requests that DOER allow all units located in New England, regardless of whether the unit delivers electrical energy into the ISO-NE Control Area, to be exempt from this Import Requirement.

Regarding "advanced combustion technologies" and "low emissions technologies", as with any technology, it is easy to be impressed with claims of manufacturers attempting to sell their products. However, since we all deal in a regulatory world that has significant consequences if the claims do not hold up in practice, DOER needs to be cautious in accepting such claims at face value without actual operating experience. One only has to look at the fact that the Legislature used the Burlington wood gasification plant as the example of "advanced technology" to be reminded that there should be a few years of actual operating experience with a technology before developing a regulation based upon that technology. One such technology cited in the NOI is the RSCR. How many of these systems have been installed on US biomass plants, how long have they been operating, and what is the actual operating experience with them on U.S. biomass plants? Can they consistently achieve the limits in Table 2 or 3 without causing an exceedence? What is the impact, if any, of these systems on carbon monoxide (CO) emissions? Also, what is the impact on CO and NOx emissions of improving the efficiency, e.g., improving the heat rate, of existing biomass plants?

Regarding guidelines for "retooling" existing biomass plants, has DOER determined the "universe" of existing biomass plants that have not yet received an advisory ruling from the Agency but might be able to upgrade and apply to participate in the RPS? If so, could the DOER publish this list on the web site? This information would be useful in determining how much of an issue is "retooling".

The following comments refer to the specific questions on page 15 and 16 of the NOI:

A. Wheelabrator has no comment on this issue at this time.

B. Wheelabrator has extensive experience with the operation of wood-fired biomass plants. Based upon our experience, use of heat rate (BTU/MWh) as the basis for determining whether an existing facility is an advanced biomass conversion technology is not appropriate. Heat rate of a unit is affected by many site specific factors:

    - the fuel type and quality (e.g., green tree chips or dry C&D wood, water saturated from rain/snow or dry),

- if the facility is a combined heat and power unit (e.g., steam conditions vary from customer to customer, so a single factor correcting steam to heat rate for all biomass CHP plants is inappropriate),
- if the unit has site specific environmental controls that have large parasitic power demands (e.g., air cooled condensers),
- the impact on heat rate of installing advanced emissions controls with parasitic loads such as SCR.

Wheelabrator will submit further comments and a proposal for an alternative to heat rate by August 4.

C. DOER should adopt one set of guidelines for emissions, i.e., the Table 2 "permitted" levels and not attempt to guess at what may be achievable (see above comment on manufactures' claims about their technologies.) DOER should reply upon the respective state environmental agency's Best Available Control Technology review to determine if the emissions levels should be lower than Table 2 and if so, how much lower. These extensive reviews account for changes in technologies over time and use the most recent, actual experience in achieving low emissions. With respect to existing facilities, since a review of how many existing biomass plants may be eligible to apply to participate in the RPS may demonstrate that it is only a few facilities, it may not be worth the effort to attempt to develop standards beyond Table 2 for existing facilities.

D. Output-based emissions standards suffer from the same problems as a heat rate standard for the reasons given above.

E. It may be worthwhile to review the standards on some frequency, but DOER should not presuppose that they will need to increases the stringency of the standards. Wheelabrator suggests a five-year review. This would give any emerging technologies sufficient time to have been implemented and develop a track record that can be statistically evaluated.

F. Wheelabrator does not support a time limit on the eligibility of a retrofitted existing biomass plant. Once a biomass plant has demonstrated that it meets the "advanced technology" and "low emissions" criteria, what difference does it make, with respect to being a renewable energy source, if the facility was an existing facility or a brand new greenfield site? Furthermore, the evaluation of whether three years is a sufficient payback period depends upon individual facility factors and the risk threshold of the company that owns the facility. The size of the facility, the anticipated market price of electricity three years out, the capital and operating costs of any improvements needed to meet the "advanced technology" and "low emissions" criteria, and the expected rate of return of the company are some of the factors that determine whether three years is sufficient. What value does it serve the environment and reducing our dependence on fossil fuels if a facility retrofits, sells power and RECs for three years and then shuts down?

G. Wheelabrator agrees that there should be a time limit upon which one must complete a project once a Statement of Qualifications has been issued. Likewise, there should be a time limit within which the DOER must act upon an Application. Wheelabrator will comment further on this issue in its Final Comments.

H. Wheelabrator has no comment on this issue at this time.

Thank you again for this opportunity to provide input into this process. We look forward to working with DOER on this important activity. A copy of these comments has been emailed and a hard copy has been mailed to the address in the NOI. If you have any questions on the above, please call me at 603-929-3305 or contact me at fferraro@wm.com.

Sincerely,

Frank Ferraro
Vice President,
Environmental Management
& Public Policy